

Notice of Allowability

Application No.

10/792,097

Applicant(s)

MILLER ET AL.

Examiner

Art Unit

Tu Ba Hoang

3742

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to preliminary amendment filed 03/03/04.
2. ☒ The allowed claim(s) is/are 14-28.
3. ☒ The drawings filed on 03 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

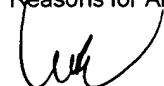
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none">1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>06/07/04</u>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none">5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance9. <input type="checkbox"/> Other _____ |
|--|---|


Tu Ba Hoang
Primary Examiner
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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:
In claim 14, at line 6: change "the communicating means" to -- the providing fluid communication means --.

The above change has been made to put the case in better form for issue without changing the claimed invention scope since it is clear that "providing fluid communication means" is appeared to be more consistent with "means for selectively providing fluid communication" recited at line 4 instead of "communicating means".

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Blackwell et al (US 2,165,742), Pagonis (US 3,079,451), Caudill et al (US 4,152,187), Otsuka et al (US 5,757,843), and Miller et al (US 6,724,803).

The following is an examiner's statement of reasons for allowance: allowance of claims 14-28 is indicated because the prior art of record does not show or fairly suggest a cooling assembly having a means for selectively providing fluid communication between a hot zone of and a dome of an induction furnace, wherein the means for selectively providing fluid communication is controlled based on at least one of a temperature of the hot zone and a temperature of the interior chamber of the dome (as recited in claim 14), the furnace having a layer of flexible graphite exterior to a graphite susceptor which defines the furnace interior chamber for inhibiting escape of carbon vapor sublimed from the susceptor (as recited in claim 17), and after the chamber is heated, it is cooled by selectively fluidly connecting with a second chamber (or the interior chamber of the dome) for allowing heat to flow from the gas in the furnace chamber to the gas in the second chamber (as recited in claim 19). It is noted that Matsuo et al (US 4,888,242) cited by the Applicants while discloses the use of a flexible graphite sheet in an induction heating graphite crucible, the flexible graphite sheet is applied to the interior of the graphite crucible (i.e., susceptor) instead and while Stenkvist (US 3,297,311) cited by the Applicants discloses the use of a cover which can be raised or lowered by means of screw devices to provide a fluid communication between the hot zone and the dome in an induction furnace, such means or screw devices are not controlled by any mean in accordance with the temperature of either the hot zone or the dome (i.e., the vapor gases).

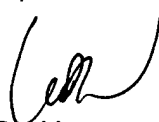
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Ba Hoang whose telephone number is (571) 272-4780. The examiner can normally be reached on Mon-fri from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu Ba Hoang
Primary Examiner
Art Unit 3742

tbh
January 13, 2005